

REMARKS

In this Amendment, claim 5 has been rewritten in independent form to include all the limitations of claim 2. Further, claim 6 has been canceled without prejudice or disclaimer to its underlying subject matter. Lastly, new claims 7 and 8 have been added to further protect specific embodiments of the present invention. Support for the new claims can be readily found throughout the specification and original claims.

PCT Article 19 Claim Amendments

Applicant notes that the original claims (as presented in the specification) were amended under Article 19 of the PCT during the international phase of the present application. In the claim amendments under Article 19, claim 1, 3 and 4 were canceled without prejudice or disclaimer, claim 2 was amended to more particularly define the present invention, and claims 5 and 6 were amended in view of the cancellation of claim 1. These Article 19 claim amendments (see Appendix A "TRANSLATION OF AMENDMENT UNDER ARTICLE 19 PCT") are filed herewith for the Examiner's information. The Examiner is requested to examine the present application based on such claim amendments since these amendments were already entered upon entry into the U.S. national stage. The foregoing claim amendments have also been effected based on such an understanding.

CONCLUSION

Applicants believe that all pending claims are in optimal form for examination. Thus, favorable examination on the merit is respectfully requested. If the Examiner has any comments or suggestions that would place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number below.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. NFA-0213 from which the undersigned is authorized to draw.

Dated: September 15, 2005

Respectfully submitted,

By 

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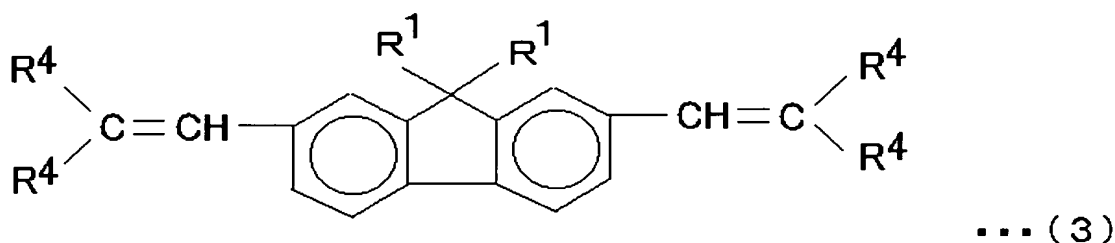
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TRANSLATION OF AMENDMENT UNDER ARTICLE 19 PCT

AMENDED CLAIMS

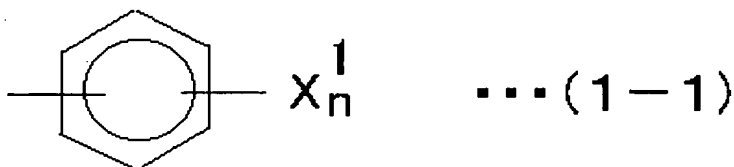
1. (deleted).

2. (amended) A blue light-emitting compound having a chemical structure represented by formula (3):



wherein R^1 is a hydrogen atom, an alkyl group having 1 to 15 carbon atoms, a cycloalkyl group having 6 to 15 carbon atoms, or an aryl group represented by one of formulas (1-1) to (1-4), wherein two R^1 's may be the same or different from each other; and R^4 denotes a hydrogen atom, an aryl group represented by formula (3-1), or phenyl group, wherein four R^4 's may be the same or different from each other;

the formula (1-1) is:

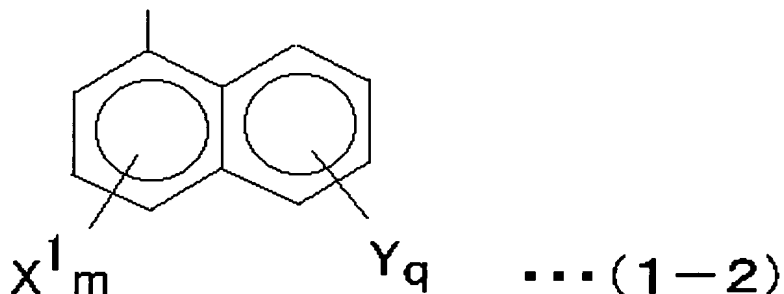


wherein X^1 is an alkyl group having 1 to 10 carbon atoms, an alkyl group having 1 to 10 carbon atoms, at least one hydrogen atom of which is replaced with a fluorine atom, or a hydrogen

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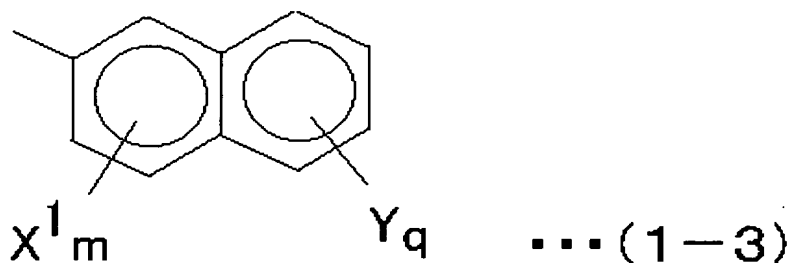
atom, and n denotes an integer of 1 to 5;

the formula (1-2) is:



wherein X^1 means the same as the above; Y means an alkyl group having 1 to 10 carbon atoms, an alkyl group having 1 to 10 carbon atoms, at least one hydrogen atom of which is replaced with a fluorine atom, or a hydrogen atom; m denotes an integer from 1 to 3; q denotes an integer from 1 to 4; and X^1 and Y may be the same or different from each other;

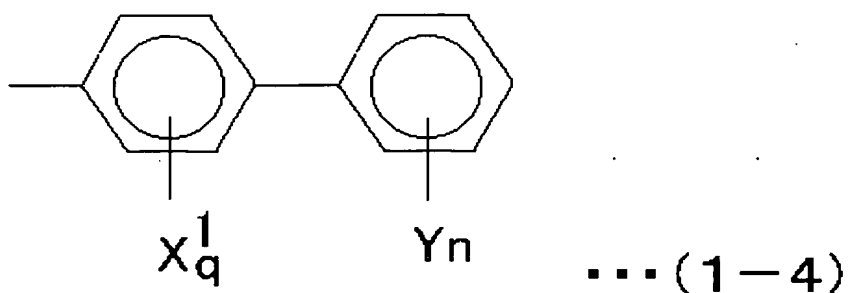
the formula (1-3) is:



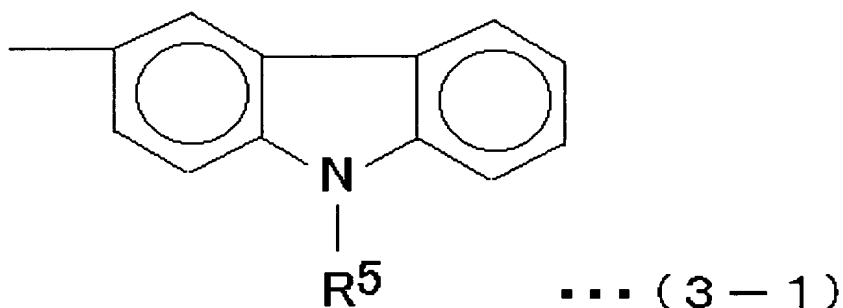
wherein X^1 , Y, m and q denote the same as the above-defined, and X^1 and Y may be the same or different from each other;

the formula (1-4) is:

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wherein X^1 , Y , n , and q denote the same as those defined above, and X^1 and Y may be the same or different from each other; and the formula (3-1) is:



wherein R^5 denotes a hydrogen atom or an alkyl group with 1 to 5 carbon atoms.

3. (deleted).

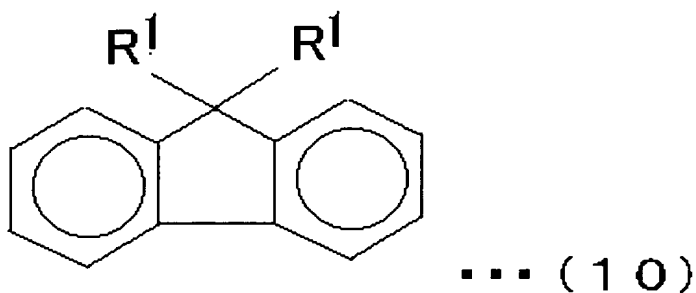
4. (deleted).

5. (amended) A process for producing the blue light-emitting compound represented by the formula (3) in claim 2, comprising halogenating a fluorene represented by formula (10) to produce an halogenated aromatic compound represented by formula (11), reacting the halogenated aromatic compound

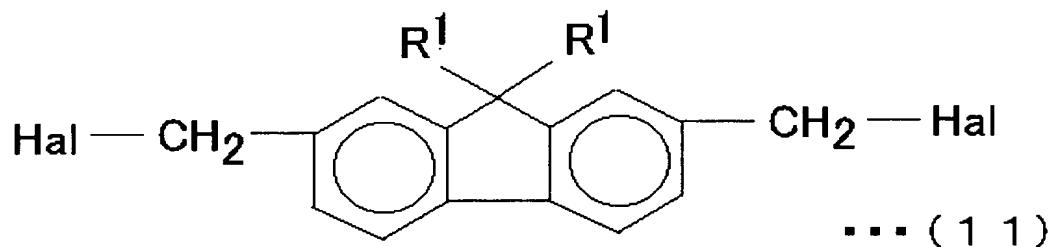
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with triphenyl- phosphine to produce an organic phosphoric compound, and reacting the organic phosphoric compound with a carbonyl compound, wherein

the formula (10) is:



wherein R¹ denotes the same as that defined in claim 2; and the formula (11) is:



wherein R¹ denotes the same as that defined in claim 2, and "Hal" denotes a halogen atom.

6. (amended) A luminescent element comprising a light-emitting layer including the blue light-emitting compound represented by the formula (3) between a pair of electrodes

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Brief Statement under Article 19(1) of the PCT

(1) Claim 1 is deleted from the application.

(2) Claim 2 is amended as shown above.

Reference 3 (JP2003-64003 A) teaches a compound represented by formula (1). In the compound, a benzene ring that has a substituent is bonded to each of the unsaturated groups having a double bond that are bonded to the fluorene skeleton. On the other hand, the compound represented by formula (3) in claim 2 takes embodiments different from the disclosure of Reference 3. Examples of the embodiments are as follows: (A) one benzene ring that does not have any substituents is bonded to each of the vinyl groups bonded to the fluorene skeleton, (B) two aromatic groups are bonded to each unsaturated group having a double bond that is bonded to the fluorene skeleton, and (C) one carbazole skeleton is bonded to each unsaturated group having a double bond that is bonded to the fluorene skeleton. The compound recited in amended claim 2 is not taught in Reference 3. Also, Reference 3 neither discloses nor suggests that the benzene ring having a substituent, which is bonded with the unsaturated group having a double bond that in turn is bonded to the fluorene skeleton, may be replaced with other substituents.